AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims

1. (Original) A peptide, being the N-terminal fragment of human proinsulin C-peptide, and having the sequence

E A E D L Q V G Q V E L (SEQ ID. NO. 2)
1 2 3 4 5 6 7 8 9 10 11 12

or a fragment or peptide derivative thereof retaining the functional ability of said N-terminal fragment to contribute to C-peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting a conformation where said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the a-carbons thereof; and wherein said peptide derivative does not include native C-peptide of any species nor human C-peptide 1-15, 1-24 or 1-26 or rat Cpeptide 1-26.

2. (Original) A peptide having an amino acid sequence comprising (i) the N-terminal fragment of human insulin C-peptide having the sequence

E A E D L Q V G Q V E L (SEQ ID NO. 2)

or (ii) a fragment or peptide derivative of amino acid sequence SEQ ID NO. 2 retaining the functional ability of said N-terminal fragment to contribute to C peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting

a conformation wherein said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the acarbons thereof;

said peptide having C-peptide activity, but not including native C-peptide of any species nor human C-peptide 1-15, 1-24 or des 13-17.

3. (Currently Amendment) A peptide according to claim 1 ~~or 2~~ having the formula (I):

Xn - Y - Xm - Y - XP (I)

wherein

X is any amino acid;

Y is an acidic amino acid;

n = 0-6;

m = 5-9; and

p = 0-6.

4. (Original) The peptide of claim 3, wherein m is 5-8.

5. (Currently Amended) The peptide of claim 3 ~~or 4~~, wherein m is 7.

6. (Currently Amended) The peptide ~~of any one~~ of claim[[s]] 1 ~~to 5~~ which is capable of adopting an α-helical conformation.

7. (Original) The peptide of claim 6 wherein said two acidic amino acid residues are located on one side of said α-helix.

8. (Currently Amended) The peptide according to claim 6 ~~or 7~~ which is a peptide derivative of SEQ. ID. No. 2 but comprises further amino acid residues of the N-terminal fragment of C-peptide (SEQ. ID. No. 2) which are located on one side of said a-helix such that the helix presents a conserved surface.

9. (Original) The peptide of claim 8 wherein said conserved surface comprises Gln 6 and/or Val 7 in addition to said two acidic residues.

10. (Currently Amended) The peptide ~~of any one~~ of claim[[s]] 1 ~~to 9~~ further comprising a third acidic amino acid residue capable of interacting with said two acidic amino acid residues.

11. (Currently Amended) The peptide ~~of any one~~ of claim[[s]] 1 ~~to 10~~ wherein at least one of the acidic amino acid residues is Glu.

12. (Original) The peptide of claim 11 wherein said two acidic amino acid residues are Glu.

13. (Currently Amdended) A salt, solvate or ester of the peptides ~~of any one~~ of claim[[s]] 1~~to 12~~.

14. (Currently Amended) The peptide of ~~any preceding~~ claim 1 wherein said two acidic amino acid residues are spatially separated from one another by a distance of 10-13 Å between the α-carbons thereof.

15. (Original) A peptide, being the N-terminal fragment of human insulin C-peptide and having the sequence

E A E D L Q V G Q V E L (SEQ ID NO. 2)

or a fragment or peptide derivative thereof retaining the functional ability of said N-terminal fragment to contribute to C-peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting a conformation where said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the α-carbons thereof, wherein said derivative does not include native C-peptide of any species nor human C-peptide 1-15 or 1-24, for use in therapy.

16. (Original) A peptide having an amino acid sequence comprising (i) the N-terminal fragment of human insulin C-peptide having the sequence

E A E D L Q V G Q V E L (SEQ ID NO. 2)

or (ii) a fragment or peptide derivative of amino acid sequence SEQ ID No. 2 retaining the functional ability of said N-terminal fragment to contribute to C peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting

a conformation where said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the α-carbons thereof;

said peptide having C-peptide activity, but not including native C-peptide of any species nor human Cpeptide 1-15, 1-24 or des 13-17 for use in therapy

17. (Currently Amended) The peptide of claim 15 ~~or 16~~, wherein said therapy is C-peptide based therapy.

18. (Currently Amended) The peptide[[s]] ~~of any one~~ of claim[[s]] 15 ~~to 17~~, used in conjunction with C-peptide or a C-terminal fragment of C-peptide.

19. (Currently Amended) The peptide ~~of any one~~ of claim[[s]] 15 ~~to 17~~, wherein said peptide further comprises a C-terminal fragment of C-peptide.

20. (Currently Amended) The peptide of claim 18 ~~or 19~~, wherein the Cterminal fragment of C-peptide is EGSLQ.

21. (Currently Amended) Use of a peptide as defined in ~~any one of~~claim[[s]] 15 ~~to 20~~ in the manufacture of a medicament for use in C-peptide based therapy.

22. (Currently Amended) A pharmaceutical composition comprising a peptide as defined in ~~any one of~~ claim[[s]] 15 ~~to 20~~ together with a pharmaceutically acceptable carrier or excipient.

23. (Orignal) The pharmaceutical composition of claim 22 further comprising a C-peptide or C-peptide fragment having C-peptide activity.

24. (Currently Amended) A product containing the peptide of claim 1 ~~or any of claims 3 to 14 as dependent on claim 1~~, together with a peptide having C-peptide activity, as a combined preparation for simultaneous, separate or sequential use in C-peptide based therapy.

25. (Orignal) A product as claimed in claim 24 wherein said peptide having C-peptide activity is a C-terminal fragment of human C-peptide.